SimFlex is a suite of value chain planning tools enabling companies to design, test and deploy robust and lean solutions supporting strategic, and recurring operational business decisions. SimFlex solutions provide significant cost savings and increased sales through optimal value chain design, efficient asset utilization, improved service levels and greater agility.

Blog: Value Chain Strategy

SimFlex Value Chain Strategy solution allows companies to analyze and design the lowest end-to-end value chain network that provides the highest serviceability. In defining a value chain strategy, key decisions include choosing the number and location of suppliers, manufacturing sites and logistics centers. The objective of value chain strategy is to design a supply chain that provides the right balance of flexibility and cost-efficiency while also meeting the requirements of the marketplace.

Solution Capabilities

Analyze the ‘current state’ or ‘as-is’ scenario performance:

SimFlex enables companies to model and analyze the current operating conditions and performance. Through dashboards / scorecards the users can analyze key operating metrics, including total costs, financials, asset utilization, inventory, and customer service levels. ‘Current State’ analyses discovers major gaps and helps determine and prioritize improvement initiatives and frame potential scenarios.

Optimize and analyze what-if value chain network scenarios and trade-offs:

Value chain network optimization considers all the possible material flows, constraints and associated costs to determine the lowest cost network with maximum possible service levels. Users can then exploit both optimization and simulation to run various what-if scenarios and analyze the impact of each across multiple dimensions. All this can be done using the same data model and scorecards, eliminating the need to make model changes, or indeed create a new model for a different planning approach. Additionally, simulation can be used to validate the optimal solution, as it incorporates real-world variability and phenomena.

Solution robustness through sensitivity analysis:

SimFlex offers sensitivity analysis capabilities, to test the robustness of a potential solution against events like demand spikes or downturns, cost escalations, currency fluctuations and unexpected events. Such analyses allows companies to understand the risks of a potential solution and determine mitigation tactics.

SimFlex Differentiation

Comprehensive set of optimization and simulation technologies:

SimFlex combines multiple problem solving methods employing simulation and optimization technologies.
This provides superior diagnostics for sound decision-making for a wide-range of business decisions. Moreover, different technologies operate on a common data model, thus avoiding model or software application changes.

**Modeling capabilities:**

SimFlex Value Chain Strategy solution provides end-to-end value chain modeling capabilities, from sub-tier suppliers to the end customers, encompassing multiple companies, facilities, currencies and products down to individual SKU and product line level. SimFlex is capable of modeling real-world phenomena like product life-cycles, fluctuating demand and forecast inaccuracies, price erosion, surcharge trends, lead time variations, tax, duties and currency exchange rate fluctuations. Modeling simple or complex value chains is done through a feature-rich and user-friendly graphical user-interface. In addition, data from external sources can be easily imported through a powerful data exchange module.

**Key Features**

Some of the key features of SimFlex Value Chain Strategy solution are:
- Multi-Echelon value chain modeling
- Multi-product and multi-level bill of materials
- Financial indicators and dashboards
- Multi-currency

**Analytical capabilities:**

Analyzer is the Business Intelligence (BI) component of SimFlex, containing customizable reports and scorecards and offering advanced, in-depth analysis capabilities. Thousands of variables and value chain metrics covering cost, finance, inventories, capacity utilization, and customer service can be analyzed and compared at an aggregate or granular level. SimFlex also offers companies the ability to test how ‘green’ their supply chain is. The environmental impact associated with transportation of goods can be calculated to quantify the emissions of CO2, SOx and NOx.
Strategic Value Chain optimization is of critical importance, as the structure of a value chain typically locks in 80% of total costs. Often, companies focus only on cost aspects of the value chain, ignoring other critical performance metrics. Multi-criteria planning, enabling a concurrent focus on costs, financials, assets, inventory, service levels and even environmental impacts are critical for profitable growth. It is imperative that companies look at the impacts of business decisions on various key performance indices and plan to improve across those which are aligned with the business goals. SimFlex quantifies any potential value chain strategy from multiple perspectives and determines an optimized value chain strategy that minimizes end-to-end costs, while respecting customer service requirements, capacity and supply issues.

Benefits

Optimizing and designing the value chain network using SimFlex has typically resulted in 5% to 20% total end-to-end cost reduction. Global 2000 companies have used SimFlex Value Chain Strategy solution to determine the optimal strategy that best meets their business goals. In many cases a reduction in costs has not been at the expense of service, with increased service levels of 10% to 15% and reduction in inventory of more than 10%.

Summary

For more information on SimFlex Value Chain Strategy and other SimFlex Solutions, visit www.simflexgroup.com or email info.simflex@flextronics.com